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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,755	06/14/2007	Hyung-Weon Park	678-2691 PCT US (P13058)	1474
66547 7590 12/20/2010 THE FARRELL LAW FIRM, LLP 290 Broadhollow Road Suite 210E Melville, NY 11747				
EXAMINER				
PAN, YUWEN				
ART UNIT		PAPER NUMBER		
2618				
MAIL DATE		DELIVERY MODE		
12/20/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/585,755

## Applicant(s)

PARK ET AL.

## Examiner

YUWEN PAN

## Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 1-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 32-36 is/are rejected.
- 7) ☒ Claim(s) 37-42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-945)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Election/Restrictions**

1. Applicant's election without traverse of claims 32-42 in the reply filed on 10/08/10 is acknowledged.

### **Information Disclosure Statement**

2. The information disclosure statement (IDS) submitted on 07/12/06, 08/28/06, 11/12/09, and 03/08/10 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### **Priority**

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### **Claim Objections**

4. Claim 32 is objected to because of the following informalities: lines 3, "a predetermined control" and lines 10, "a predetermined control" is not clear whether they are the same control signal. The term is used frequently across the dependent claims, appropriate correction is required.
- 5.

### **Claim Rejections - 35 USC § 103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Snider (US007512388B2). .

Per claim 32, Snider discloses a multimode/multiband mobile station (see figure 1 and 4) comprising: a switch module (see figure 1 and item 112) for performing a switching operation for selecting a mode and band to be received among multiple modes and multiple bands based on a predetermined control (item 112 receives at least a control signal from item 14); receivers, each for receiving its own mode/band signal among multimode/multiband signals based on the switching operation (see figure 1 and item 116, 120 and figure 4 item 460-466); mixers, (see figure 1 and item 124, although one is showed, it is obvious to have more than one when multiple band need to be down converted) each for down converting the received signal using a local frequency corresponding to the mode and band to be received (see column 4 and liens 53-59); a baseband processing module (see figure 1 and item 140) for controlling a receiver corresponding to the mode and band to be received among the receivers based on a predetermined control, baseband-processing the down converted reception signal, and outputting a baseband signal by classifying the baseband signal for each mode (see column 4 and lines 62-column 5 and line 1); and a controller (item 140) module for outputting a control signal for receiving a signal of the mode and band to be received, controlling the local frequency to a local frequency corresponding to the mode and band to be received, and demodulating the baseband signal for each mode through a modem for each mode (see column 5 lines 9-23). Although Snider does not teach the controller is a modem, Snider does suggest the controller could be any device with a general purpose outputs capable of providing control signals to one or more switches (see column 6 and lines 55-60). It would have been obvious to one of ordinary skill in

the art at the time the invention was made to have a modem because modem can provide control signals also.

8. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Snider in view of Abdelgany et al (US007092676B2, hereinafter Abdelgany).

Per claim 33, Snider does not teach that the multiple modes and multiple bands comprise bands of a WCDMA mode. Abdelgany teaches such feature (see column 21 and lines 20-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the reference to increase the adaptation of the multi-band phone.

Per claim 34, Abdelgnay further teaches that the receivers comprise: WCDMA receivers for receiving bands of the WCDMA mode; GSM receivers for receiving bands of the GSM mode; and WCDMA/GSM combined receivers for receiving common bands of the WCDMA and GSM modes (see column 21 and lines 64-column 22 and lines20).

9. Claims 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Snider and Abdelgany in further view of Miyano et al (US20070026827A1, hereinafter Miyano).

Per claim 35, combination of Snider and Abdelgany teaches the switch module comprises: a first antenna switch for performing switching for selecting a reception mode and frequency band to be received among the bands of the WCDMA mode and the bands of the GSM mode based on a predetermined control; a band selection (see Abdelgany figure 10 and item 178 and corresponding paragraphs as cited above) switch for selecting a frequency band of the GSM mode when the reception mode is selected as the GSM mode. The combination does not expressly teach a second antenna switch for selecting whether WCDMA diversity reception

is performed when the reception mode is selected as the WCDMA mode. Miyano teaches such feature (see abstract and figure 1 and corresponding paragraphs). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the reference to increase receiving gain.

Per claim 36, combination of Snider, Abdelgany and Miyano further teaches that the mixers comprise: a first mixer for down converting a signal received by receivers receiving the bands of the WCDMA mode and the common bands of the WCDMA and GSM modes among the multiple modes and multiple bands; and a second mixer for down converting a signal received by receivers receiving the bands of the GSM mode and WCDMA diversity bands among the multiple modes and multiple bands

#### **Allowable Subject Matter**

10. Claims 37-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUWEN PAN whose telephone number is (571)272-7855. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yuwen Pan/  
Primary Examiner, Art Unit 2618